

Amendments to the Claims:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

1. (Currently Amended) A position measuring apparatus for surgery comprising:

a position indicating means for indicating a two-axial setting-position ~~setting position~~ and a two-plane setting-direction ~~setting-direction~~ of a surgical tool, said position indicating means comprising including a pair of laser beam emitting means for emitting two respective laser beams scanned to form two planes, respectively, that intersect in a surgical field, where said two-axial setting-position is indicated by an intersection of said laser beams on a surface of a surgical object;

a three-dimensional position measuring means for measuring a position and a direction of said surgical field and also the setting-position ~~setting position~~ and the setting-direction ~~setting-direction~~ of said surgical tool; and

a control unit for controlling operation of said position indicating means and said three-dimensional position measuring means,

wherein said position indicating means and said three-dimensional position measuring means being fixed on a common base, so that relative positional relationship therebetween is constant; and

wherein said setting-direction ~~setting-direction~~ for said surgical tool is given in a form of an intersection line formed by an intersecting said two planes which are formed by said two respective laser beams.

2. (Cancelled)

3. (Previously Presented) A position measuring apparatus, as described in the claim 1, wherein said position measuring apparatus is held on a stand, which is changeable in its position and direction by being movable while keeping the relative positional relationship between said position indicating means and said three-dimensional position measuring means.

4. (Previously Presented) A position measuring apparatus, as described in the claim 1, wherein said position measuring apparatus is held by an arm, the arm extending from a ceiling and being changeable in a position and a direction by being movable while keeping the relative positional relationship between said position indicating means and said three-dimensional position measuring means.

5. (Previously Presented) A position measuring apparatus, as described in the claim 1, wherein said position measuring apparatus is used for indicating a position and a direction of said surgical tool during a surgical operation.

6. – 13. (Cancelled)

14. (Currently Amended) A position measuring apparatus, as described in the claim 1, wherein said surgical tool including plural line indicia marked thereon, serving as reference lines for parallelly-aligning scanning lines of said laser beams impinging onto said surgical tool to parallelly-align with said line indicia, as a guide to

effect said setting-direction ~~setting-direction~~ of said surgical tool.

15. (Currently Amended) A position measuring apparatus for surgery comprising:

a position indicating means for guiding a two-axial setting-position ~~setting position~~ and a setting-orientation ~~setting-orientation~~ of a surgical tool, said position indicating means comprising including a pair of laser beam emitting means for emitting respective laser beams that intersect in a surgical field, where said two-axial setting-position is indicated by an intersection of said laser beams on a surface of a surgical object;

a three-dimensional position measuring means for measuring a position and an orientation of said surgical field and also the setting-position ~~setting-position~~ and the setting-orientation ~~setting-orientation~~ of said surgical tool; and

a control unit for controlling operation of said position indicating means and said three-dimensional position measuring means,

wherein said position indicating means and said three-dimensional position measuring means being fixed on a common base, so that relative positional relationship therebetween is constant; and

wherein said setting-orientation ~~setting-orientation~~ for said surgical tool is given in a form of an intersection line formed by an intersecting said two planes which are formed by said two respective laser beams.

16. (Previously Presented) A position measuring apparatus, as described in the claim 15, wherein said position measuring apparatus is held on a stand, which is

changeable in its position and orientation by being movable while keeping the relative positional relationship between said position indicating means and said three-dimensional position measuring means.

17. (Previously Presented) A position measuring apparatus, as described in the claim 15, wherein said position measuring apparatus is held by an arm, the arm extending from a ceiling and being changeable in a position and an orientation by being movable while keeping the relative positional relationship between said position indicating means and said three-dimensional position measuring means.

18. (Previously Presented) A position measuring apparatus, as described in the claim 15, wherein said position measuring apparatus is used for indicating a position and an orientation of said surgical tool during a surgical operation.

19. (Currently Amended) A position measuring apparatus, as described in the claim 15, wherein said surgical tool including plural line indicia marked thereon serving as reference lines for parallelly-aligning scanning lines of said laser beams impinging onto said surgical tool to parallelly-align with said line indicia, as a guide to effect said setting-orientation ~~setting-orientation~~ of said surgical tool.

20. (Currently Amended) A position measuring apparatus for surgery comprising:

a position indicating means for ~~guiding an~~ guiding a two-axial intersection point as a setting-position ~~setting-position~~ and an two-plane intersection line as a

~~setting-orientation~~ ~~setting-orientation~~ of a surgical tool, said position indicating means ~~comprising~~ including a pair of laser beam emitting means for emitting two respective laser beams scanned to form two planes that intersect in a surgical field, where said two-axial intersection point is indicated by an intersection of said laser beams on a surface of a surgical object;

a three-dimensional position measuring means for measuring a position and an orientation of said surgical field and also the ~~setting-position~~ setting-position and the ~~setting-orientation~~ setting-orientation of said surgical tool; and

a control unit for controlling operation of said position indicating means and said three-dimensional position measuring means,

wherein said position indicating means and said three-dimensional position measuring means being fixed on a common base, so that relative positional relationship therebetween is constant, and

wherein said two-plane intersecting line is given by an intersecting said two planes which are formed by said two respective laser beams.

21. (Previously Presented) A position measuring apparatus, as described in the claim 20, wherein said position measuring apparatus is held on a stand, which is changeable in its position and orientation by being movable while keeping the relative positional relationship between said position indicating means and said three-dimensional position measuring means.

22. (Previously Presented) A position measuring apparatus, as described in the claim 20, wherein said position measuring apparatus is held by an arm, the arm

extending from a ceiling and being changeable in a position and an orientation by
being movable while keeping the relative positional relationship between said
position indicating means and said three-dimensional position measuring means.

23. (Canceled)

24. (Currently Amended) A position measuring apparatus, as described in
the claim 20, wherein said surgical tool including plural line indicia marked thereon,
serving as reference lines for parallelly-aligning scanning lines of said laser beams
impinging onto said surgical tool to parallelly-align with said line indicia, as a guide to
effect said setting-orientation ~~setting-orientation~~ of said surgical tool.